

MAY 1 1900

## SOME ILLINOIS BEES.\*

CHARLES ROBERTSON.

### ANDRENA HIRTICEPS Sm.

*Andrena hirticeps* Smith, Brit. Mus. Cat. Hym. 1:116. ♂. 1853.

♀. — Black; pubescence black, except on thorax above, on vertex and usually about insertion of antennae, where it is ochraceous; clypeus shining, coarsely punctured, except a median raised line; process of labrum semicircular; third joint of antennae about equaling next two joints together, flagellum dull testaceous beneath; wings fusco-hyaline, apical margins clouded; nervures and stigma fusco-ferruginous, second submarginal cell about as long as third to second recurrent nervure; abdomen shining, almost impunctate except on bases of segments, no pubescent fasciae. Length 12–13 mm.

Carlinville, Illinois; 24 ♀, 27 ♂ specimens, the sexes taken in copula. I have regarded the male as that of *A. vicina*, and the female as only a variant form. The true *A. vicina*, I think, does not occur here. The male, which, no doubt, resembles the above, I think will be found to want the black hairs on the head. But for the description of the male, I would say that *A. errans* is the same as *A. hirticeps*.

### ANDRENA VICINIFORMIS n. sp.

♀. — Black; head, thorax and femora clothed with fulvous pubescence which is brightest on scutellum, palest beneath, a few blackish hairs about ocelli and on clypeus, floccus pale, tibiae and tarsi with blackish pubescence, the scopae on hind femora and tibiae, however, pale beneath; clypeus shining, coarsely punctured, a median raised line impunctate; process of labrum semicircular; third joint of antennae about equaling next two together; wings fusco-hyaline, nervures fusco-ferruginous, second and third submarginal cells subequal;

---

\* Presented to The Academy of Science of St. Louis, in abstract, January 22, 1900.

abdomen shining, nearly bare and nearly impunctate, anal fimbria dull fulvous. Length 10–12 mm.

♂. — Resembles the male of *A. hirticeps*, but the black hairs on vertex and about eyes are wanting, and the second and third submarginal cells are subequal. Length 9 mm.

Carlinville, Illinois; 18 ♀, 2 ♂ specimens. This may be the same as *A. dunningii*.

*ANDRENA MACOUPINENSIS* n. sp.

♀. — Black, tips of four anterior tarsi and hind tibiae and tarsi ferruginous; pubescence thin and pale; clypeus convex, finely roughened and closely punctured on the sides, in the middle smooth, shining, coarsely and sparsely punctured; process of labrum large, emarginate; front before ocelli finely striate; lateral grooves broad, extending below antennae, filled with pale pubescence; third joint of antennae longer than next two together, fourth joint shorter than fifth, flagellum dull testaceous beneath; mesonotum and scutellum sparsely punctured, finely roughened except on the discs which are smooth and shining; inclosure of metathorax finely and evenly roughened; wings yellowish hyaline, nervures and stigma dull honey-yellow, second submarginal narrowed above, receiving recurrent nervure beyond middle, about one-half as long as third; hind tibiae and metatarsi rather broad, tibial scopa short, dense, not very plumose; abdomen somewhat shining, minutely roughened and finely sparsely punctured, clothed with rather long thin pubescence forming thin whitish fasciae on margins of segments, anal fimbria ochraceous. Length 11 mm.

Carlinville, Illinois; 2 ♀ specimens. This species closely resembles *A. mandibularis*, but the clypeus, mesonotum and scutellum are more shining, pubescence thinner and paler, facial grooves longer, broader, with paler pubescence, third joint of antennae longer, hind legs stouter, inclosure of metathorax larger, less rugose, etc.

*ANDRENA SALICACEA* n. sp.

♀. — Black; clothed with thin pubescence, dirty white above, pale below, showing a little fuscous on the tibiae; clypeus

convex, finely roughened, with rather large and sparse punctures; process of labrum long, narrow; front below ocelli finely striate; facial grooves narrow, extending below antennae, appearing fulvous; antennae black, short, joint three longer than four and five together, these subequal; mesonotum and scutellum finely roughened, rather sparsely punctured, not shining; metathorax rugose reticulated, inclosure small, quite rough; wings subhyaline, nervures honey-yellow, stigma darker, second submarginal cell about half as long as third, receiving recurrent nervure just beyond middle; abdomen smooth, shining, almost impunctate, especially the first segment, with thin pale pubescence, segments 2-4 with narrow pale-testaceous margins and thin whitish fasciae, anal fimbria blackish. Length 10 mm.

Carlinville, Illinois; 2 ♀ specimens. This species also resembles *A. mandibularis*.

#### ANDRENA NASONII Rob.

*Andrena nasonii* Robertson, Trans. Am. Ent. Soc. 22: 120. ♀. 1895.

♂. — Closely resembles the female; abdomen more shining, pubescent fasciae almost obsolete; face narrowed below; clypeus finely roughened, with rather coarse, shallow punctures, bearded with long, thin, white pubescence; antennae long, joint three about as long as four, shorter than five. Length 6-8 mm.

Carlinville, Illinois; 15 ♀, 4 ♂ specimens.

#### ANDRENA ROBERTSONII D. T.

*Andrena serotina* Robertson, Trans. Am. Ent. Soc. 20: 148. ♀ (not ♂). 1893.

♂. — Closely resembles the female; abdomen less fasciate with pubescent bands; clypeus yellow; third joint of antennae longer than fifth; cheeks narrow, without obtuse angle; sixth ventral segment of abdomen with reflexed dentiform angles. Length 7 mm.

Carlinville, Illinois; 41 ♀, 7 ♂ specimens. Resembles the male of *A. bipunctata*, but may be readily distinguished by its cheeks being more narrow, without obtuse angle, more rugose inclosure of metathorax and dentiform reflexed angles of sixth ventral segment.

**ANDRENA CORNI** n. sp.

♀. — Closely resembles *A. pruni* ♀ in size and color; middle of mandibles rufous; process of labrum triangular, truncate; clypeus more closely and finely punctured, less shining, more pubescent, median raised line less evident. joint three of antennae longer than next two together, facial foveae broad, not widely separated below from eye margin; inclosure of metathorax more rugose; abdomen less shining, more closely punctured, legs more ferruginous. Length 11 mm.

Carlinville, Illinois; 1 ♀ specimen.

**ANDRENA ANDRENOIDES** Cr.

*Parandrena andreoides* Robertson, Trans. Acad. Sci. St. Louis. 7: 337. 1897.

**ANDRENA WELLESLEYANA** Rob.

*Parandrena wellesleyana* Robertson, Trans. Acad. Sci. St. Louis. 7: 337. 1897.

When this name was proposed it was stated that it was little more than a section of *Andrena*. It is proposed here to reduce it to that rank. It is certainly a natural group in which the two above species have originated from a common ancestor whose wings had only two submarginal cells. Nevertheless, except as an expedient for separating the species having only two submarginal cells, we are hardly justified in giving a special name to this group of *Andrena* unless we are going to divide the genus into several named sections.

The second transverse cubital nervure is the most unstable element in the venation of bees. Its presence is not constant in ordinary species of *Andrena*, as I have found it wanting in specimens of *Andrena platyparia*, *solidaginis*, *bipunctata*, *hippotes*, *robertsonii* and *claytoniae*. Its obliteration seems to be constant, and of quite independent origin, in species referred to *Biareolina* Dours, *Callandrena* Kkll. and *Parandrena* Rob. To establish a new genus for every one, or every set, of these anomalous *Andrenas*, now seems to me to be unnecessary.

**IOMELISSA** n. g.

This is proposed for the reception of *Andrena violae* Rob. Scopae, facial foveae and venation as in *Andrena*, the basal

nervure sometimes ending before the transverse median; clypeus produced, third joint of antennae longer than next two together, mouth parts long, maxillary palpi six-jointed; labial palpi four-jointed. the joints long and subequal; tongue long, filiform, pubescent.

This may be the same as *Colissa americana* Sm. The male sometimes has a small yellow spot on the clypeus, and on each side of the face.

#### COLLETES BREVICORNIS Rob.

*Colletes brevicornis* Robertson, Trans. Acad. Sci. St. Louis. 7: 315. ♂. 1897.

♀. — Agrees with the male in all respects, except that the pubescence on the thorax above is mixed with blackish. Length 9 mm.

Carlinville, Illinois; 5 ♀ specimens.

The third joint of antennae is longer than any except the last, and, of course, the scape; second submarginal cell equal to, or a little shorter than, the third, receiving the first recurrent nervure a little before the middle; nervures usually darker than indicated in original description.

#### SPHECODES PIMPINELLAE n. sp.

♀. — Black, flagellum, labrum, mandibles, tegulae, tibiae, tarsi and abdomen red; mandibles dark at tips, with a dentiform angle; head broader than thorax; face closely and rather finely punctured, the clypeus with more sparse and more coarse punctures; mesonotum with median impressed line, roughened and indistinctly punctured in front, the disc shining, somewhat metallic, punctures more distinct; metathorax shining, coarsely reticulated, with a semicircular inclosure above; wings subhyaline, nervures and stigma fuscous; second submarginal cell narrow; first recurrent nervure uniting with second transverse cubital; abdomen shining, almost impunctate, fifth segment blackish. Length 7 mm.

Carlinville, Illinois; 1 ♀ specimen.

#### HALICTUS ARCUATUS Rob.

*Halictus arcuatus* Robertson, Trans. Am. Ent. Soc 20: 145. ♀. 1893.

♂. — Black, a transverse spot on clypeus, labrum, mandibles except base, tegulae in front, knees, edges of anterior tibiae

and all the tarsi whitish, the spots on tegulae and knees sometimes wanting; antennae long, submoniliform, black; head and thorax closely and finely punctured; scutellum subbilobed, with two mammiform eminences, metathorax very coarsely and strongly rugose reticulated; wings hyaline, nervures testaceous; abdomen shining and rather sparsely punctured on first segments, margins of segments depressed, narrowly pale testaceous, segments two and three with more or less evident, thin, interrupted, basal pubescent fasciae. Length 7-9 mm.

Carlinville, Illinois; 5 ♂ specimens.

#### HALICTUS SIMILIS Sm.

*Halictus similis* Smith, Brit. Mus. Cat. Hym. 1: 69. ♀. 1853.

♂. — Closely resembles the male of *H. arcuatus*. It is more slender, the abdomen more shining, less closely punctured, antennae testaceous beneath, a pale spot on tubercles, tibiae pale at base and apex. Length 8 mm.

Carlinville, Illinois; 1 ♂ specimen.

#### NOMADA SALICIS n. sp.

♂. — Mandibles simple; antennae short, fourth joint twice as long as third, joints 7-12 short; head and thorax closely punctured, abdomen shining, scutellum bilobed, basal nervure ending beyond transverse median, apical segment of abdomen bifid. Black, the lower part of face, mandibles except tips, labrum, scape in front, front and lower border of pleura, tubercles, two spots on scutellum, yellow; anterior and middle coxae in front, the knees, anterior and middle tarsi, anterior tibiae in front, middle and posterior tibiae at apex, yellow; elsewhere the legs are more ferruginous, inclining to blackish behind on middle and posterior pair; wings hyaline, apical border clouded, nervures and tegulae testaceous; abdomen with six yellow bands, the last two interrupted laterally so as to leave a small spot on each extreme side. Length 8 mm.

Carlinville, Illinois; 1 ♂ specimen.

#### HERIADES Spin.

*H. carinatus* Cr. is a *Trypetes*. *H. philadelphia* is a *Chelostoma*. *Osmia bocconis* Say belongs to *Ashmeadiella*.

## FLORILEGUS n. g.

This is proposed for the reception of *Melissodes condigna* Cr. It has the general character of *Melissodes*, but the maxillary palpi are moniliform, five-jointed, the joints subequal. The abdomen shows a metallic reflection.

## ANTHEDON n. g.

This is proposed for the reception of *Melissodes compta* Cr. The male has the antennae black, shorter than in *Melissodes*, joints 3 and 4 subequal, the last joint is the longest in the flagellum and is curved and produced to a point. In the female the scopae consist of hairs which are quite simple, not plumose as in *Melissodes*. The fasciae of abdomen are about alike in both sexes. Otherwise as in *Melissodes*.

## MELISSODES ATRIPES Cr.

*Epimelissodes atripes* Ashmead, Trans. Am. Ent. Soc. 26: 63. 1899.

Mr. Ashmead makes this the type of a new genus. His description of the venation is correct for only certain individuals, perhaps a majority, but in some specimens the first submarginal cell is fully as long as the third. The maxillary palpi are four-jointed. This species is closely related to *M. obliqua* Say, which also has the maxillary palpi four-jointed.

## MELISSODES PETALOSTEMONIS n. sp.

♀. — Related to and closely resembling *M. communis* Cr., but is somewhat smaller and the mesonotum and scutellum are without black pubescence. Also resembles *M. comptooides*, but the pubescence is less fulvous above, and not dark on the thorax beneath, the front and middle legs, and the hind metatarsi beneath. Length 9–11 mm.

Carlinville, Illinois; 9 ♀ specimens.

## EMPHOR BOMBIFORMIS Cr.

?*Melissodes nigripes* Smith, Brit. Mus. Cat. Hym. 2: 311. ♀ (non ♂). 1854.

*Melissodes bombiformis* Cresson, Proc. Acad. Nat. Sci. Phil. 1878: 219 ♂ ♀.

*Emphor bombiformis* Patton, Bull. U. S. Geol. Surv. 5: 476. ♂ ♀. 1879.

The male described by Smith belongs to *Melissodes depressa*. Cresson and I have supposed that the female was

the dark-legged form of *Synhalonia atriventris*, but that would hardly be described as having the pubescence of the legs black. One could hardly account for the statement that the pubescence of thorax was paler than that of the head, nor for mistaking it for the ♀ of *M. desponsa*. Mistaking *M. desponsa* ♂ and *M. bombiformis* ♀ as sexes of the same thing will not seem very strange to any one who will place them side by side. Also, from the statement that the apical margins of the segments were sometimes rufo-testaceous, I suppose that Smith mixed both sexes of the *Emphor*. At any rate, I believe that the above synonymy will be verified.

*SYNHALONIA ATRIVENTRIS* Sm. form *FUSCIPES* n. f.

♀. — Differs from the normal form (*S. dubitata* Cr. ♀) in having the tibiae and metatarsi, especially the scopae of hind legs, fuscous or blackish.

*SYNHALONIA ROSAE*, n. sp.

♀. — Closely resembles the preceding form, but is smaller, the apical half of the second abdominal segment shining and impunctate, the tibial scopa more nearly surrounding that joint, less limited to the exterior of the joint. Length 12 mm.

Carlinville, Illinois; 3 ♀ specimens.

*CERATINA CALCARATA* n. sp. (?)

? *Ceratina tejonensis* Provancher, Faun. Ent. Can. 812. ♂. 1883.

*Ceratina tejonensis* Robertson, Trans. Am. Ent. Soc. 22: 126. ♂. 1895.

Differs from *C. dupla* Say ♂, as far as I can see, only in the hind femora being produced into a triangular tooth. The maxillary palpi are six-jointed. Whether it is the male of a distinct species or a dimorphous male of *C. dupla* I cannot say, but I think the dimorphism has to be proved. According to Mr. Ashmead, *C. tejonensis* has the maxillary palpi four-jointed. He makes it the type of a new genus, *Zaodontomerus*. The name of the local insect is changed on the presumption that Mr. Ashmead's statements are correct.

*NEOPASITES ILLINOENSIS* Rob.

*Phileremus illinoensis* Robertson, Trans. Am. Ent. Soc. 18: 64. ♀♂. 1891.

## NEOPASITES HELIOPSIS Rob.

*Ammobates heliopsis* Robertson, Trans. Acad. Sci. St. Louis. 7 : 352. ♂.  
1897.

In the two preceding species the males have the antennae 12-jointed, and pulvilli are present.

## EPEOLUS INTERRUPTUS n. sp.

♀. — Black, mandibles except tips, sides of labrum, three basal joints of antennae, tubercles, tegulae, two spots on scutellum, scutellar spines, and legs, except coxae, trochanters and base of hind femora, ferruginous; face about the insertion of antennae, a line on prothorax, two lines on mesonotum, pleura above, sides of metathorax above and postscutellum with appressed whitish pubescence; head and thorax densely punctured, pleura below shining, with coarse not very close punctures; scutellum subbilobed, much surpassing the spines; wings somewhat clouded, especially on apical margins, nervures and stigma black; abdomen with the fasciae of appressed whitish pubescence widely interrupted, wider on the disc and narrower towards the sides; the basal portions on first segment are quite clavate; fifth segment with a patch on each side and a narrow apical border; edges of segments 2-4 subtestaceous; the postscutellum presents a blunt tooth. Length 8 mm.

Carlinville, Illinois; one ♀ specimen.

*Issued February 21, 1900.*